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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,414	01/16/2004	Kenji Satou	XA-9478A	5646

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MILES & STOCKBRIDGE PC
1751 PINNACLE DRIVE
SUITE 500
MCLEAN, VA 22102-3833

EXAMINER

ILAN, RUTH

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,414

Applicant(s)

SATOU ET AL.

Examiner

Ruth Ilan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 25 and 26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/855,637.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 35 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 35 simply repeats lines 17-23 of claim 31, from which it depends.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 28-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Each of these claims recites a power steering apparatus. The only embodiments that disclose a power steering apparatus are shown in Figures 9 and 88, which are those embodiments that include metal balls. These embodiments do not share certain additional features of the claims. Regarding claims 28 and 33 last paragraph "wherein energy absorption loads are gradually increased with

respect to progress of a collapse stroke after points of inflection of energy absorbing characteristics in said two or more stages". This particular feature is not disclosed in the embodiments of Figures 9 and 88, but only in those embodiments associated with Figures 74A, and 76A-77. There is insufficient disclosure of the manner in which the metal ball embodiments would perform in the claimed manner. Regarding claims 29 and 34, which recites that the large load characteristic has a collapse load "that is at least twice as large as that of a small load characteristic after points of inflection of the two energy absorbing characteristics", this particular feature is described in association with Figure 75B, and is drawn to those embodiments which include a wire (see paragraph [0254].) Regarding claims 30, the embodiment which discloses "a plurality of energy absorbing characteristics" which "delay a rise timing of absorbing the energy" are shown in Figures 67 (with both the elements 197, 199 and the bent portion M) and as described in Figure 68C. The only embodiments that include a power steering apparatus is directed to metal balls, which are not a "plurality of characteristics" but only one kind of characteristic that does not delay a rise time. Regarding claim 31, as best understood, and based on the disclosure, "characteristics" are understood to be types of load profiles, and the metal ball embodiments do not have a plurality of profiles.

Double Patenting

4. Claims 26, 28, and 33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,726,248 in view of Takabatake (US 6,134,982.) Claim 30 is rejected under the

judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,726,248 in view of Takabatake (US 6,134,982.) In each of the instant claims, the limitations are included in the patented claims, with the exception of power steering. Takabatake teaches that it is known to provide a power assist motor (13) on a steering column in order to provide for easier steering. It would have been obvious to one having ordinary skill in the art at the time of the invention to include power steering, since such a steering is known to be standard in most automobiles, and to ease the steering process.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 26, 27, 31, 32, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Rhouma et al. (US 6,234,528 B1) in view of Takabatake (US 6,134,982.) Ben-Rhouma et al. teaches an impact absorbing steering column apparatus (6) that is provided with collision energy absorbing means (windings 41-43) (as taught in col. 6, lines 13-65, and Figure (3) that absorb secondary collision energy. The system includes means for adjusting the energy absorption quantity (30,31.) The system includes electric control means (see col. 2, line 47) that controls a drive (30) based on detection by a sensor that detects a condition of the occupant (see col. 10, lines 2-12.) There are at least two stages, because there are three windings, and as

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such three levels of energy absorption. Because the windings have a uniform cross section, the loads are fixed with respect to the collapse stroke after points of inflection. The points of inflection are the moment at which the predetermined force breaks the connection between the support member and the car body bracket. Because there are three windings, the scenario that uses two of them will have a collapse load that is twice as great as the scenario that uses one of them. Ben-Rhouma fails to teach a power steering. Takabatake teaches that it is known to provide a power assist motor (13) on a steering column in order to provide for easier steering. It would have been obvious to one having ordinary skill in the art at the time of the invention to include power steering mounted to the outer column, as taught by Takabatake since such a steering is known to be standard in most automobiles, and to ease the steering process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 703-306-5956.

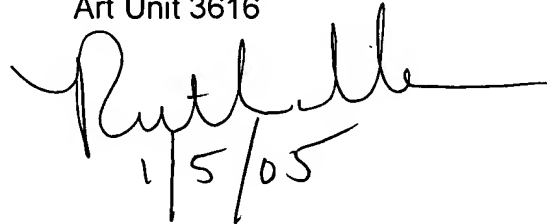
The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth Ilan
Primary Examiner
Art Unit 3616



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